

# W5YI

## Nation's Oldest Ham Radio Newsletter REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

Fred Maia, W5YI, Editor, P.O. Box 565101, Dallas, TX 75356-5101  
Tel. 817-461-6443 Electronic mail: 351-1297@mcimail.com

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## IARU SAYS HAM RADIO NEEDS MORSE CODE!

In preparation for the upcoming World Administrative Radio Conference, the International Amateur Radio Union (IARU) formed the CW Ad Hoc Committee more than a year ago to study the feasibility of retaining the Morse code requirement.

The three member Committee consisted of one representative from each of the three ITU areas: John Allaway, G3FKM (Great Britain, Region 1), David Sumner, K1ZZ (United States, Region 2) and Fred Johnson, ZL2AMJ (New Zealand, Region 3). The text of the Committee's final report has just now become available.

The end result is that the IARU CW Ad Hoc Committee recommends that the code requirement be continued indefinitely as a prerequisite to HF operation on the amateur service bands.

### The International Regulations

International Radio Regulation 2735 requires that amateur radio operators be proficient in Morse code communications when operating on frequencies below 30 MHz. The current regulation dates from the 1979 World Administrative Radio Conference (WARC 79) when the threshold frequency was reduced from 144 MHz to 30 MHz.

The 1927 International Radiotelegraph Convention was the first to require that amateur operators prove Morse code ability. This regulation has been modified in 1949, 1959 and 1979, as waiver frequencies for codeless operation have been introduced, and then successively lowered.

Confusingly, the report (on page 3) says that Morse competency is considered necessary on the HF bands today. But in the next paragraph states, "Gone are the days when a knowledge of Morse code was considered essential for communication between radio amateurs for communication between amateurs." [We still haven't figured that one out.]

### Statements from the IARU CW Report

- The mandatory "Morse test" is interpreted - or misinterpreted - by some people as a "barrier" to further progress in personal development in amateur radio - a barrier to moving from VHF operating to the world-wide HF bands. So the requirement for a formal Morse test has become a topic for debate.

The introduction of automatic machine and computer-based communication by radio amateurs has further questioned the need for a "manual sending" and "receive by ear" Morse test.

- With limited exceptions, radio amateurs today do not use Morse code to get important messages through under adverse conditions. Today, radio amateurs use Morse code [because]:

1. The equipment is simpler and therefore less expensive;
2. The equipment can be home constructed more easily;
3. Communication can be achieved with

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- relatively little effective radiated power (a characteristic that some digital systems also possess);
- 4. Under certain conditions, such as weak signals or heavy interference, other modes are not feasible or may not be available to all of the operators;
- 5. Some propagation media, such as auroral reflection, distort the signal too much for any other mode to be used;
- 6. Language barriers can be more easily overcome;
- 7. The operator gains personal satisfaction from using this acquired skill, and;
- 8. Among its enthusiasts, Morse code operation is perceived as more pleasurable, for a wide variety of reasons that are quite subjective, but are nonetheless perfectly valid to the individual.

Technological advances will have little influence on these factors.

- A wider understanding of the position of Morse code in amateur radio seems to be needed in training classes for all grades of amateur radio license. This includes an appreciation of the purpose of the Morse code and its place in amateur radio as background during study for the "codeless" licenses for operation above 30 MHz.
- Competency in Morse code is essential real world preparation for operation on the world-wide HF amateur bands. ...Every entrant should have an understanding of these matters and an appreciation of the thrills and satisfaction that competency in the code can bring.
- Considering Morse code as a "filter" for entrance into amateur radio has been a controversial topic. In many countries it has been resolved by the creation of a class of license not requiring a knowledge of Morse code. This gives operating privileges limited to frequencies above 30 MHz as provided for by RR 2735. Most IARU member-societies in countries having such licenses report that their experience with this provision is favorable.
- Through an apparent lack of understanding of the issues, from time-to-time, some individuals seek access to the amateur bands below 30 MHz without a Morse code test, suggesting that there are alternatives possible for the Morse code test. These "alternatives" are not usually quoted.
- The Morse code requirement exists for reasons other than to act as a filter. At HF:
  - International communication is the rule
  - Propagation conditions differ from moment to moment...
  - Amateur stations all have an equal right to operate and are not required to protect one another from interference

- If a "zero tolerance" interference was to apply, the amateur bands would have to be several times their present width to accommodate the present demand
- [Using CW, amateurs] are able to co-exist in their large numbers in the relatively narrow bands afforded to them
- It may be necessary for a Morse code operator to advise a phone operator about a transmitter malfunction, spurious emission, out-of-band operation, or other faults, as well as to pass unexpected emergency or safety traffic
- It would be inappropriate to require that all operators be capable of speaking and understanding a common spoken language. The Q-code and unique abbreviations provide an effective substitute for such common language, and is far easier to learn.
- "The intent is clear: As a condition of access, radio amateurs who share the limited international resource, the HF spectrum, are expected to be able to conduct rudimentary communication among themselves, without regard to language barriers or to limitations of their equipment."
- The nations of the world, at successive conferences, have confirmed that competency in Morse code must be first demonstrated before licensing an operator in the Amateur Service to use the allocated HF bands. The text of RR 2735 has withstood the scrutiny of many conferences. That the figure of 30 MHz shown in RR 2735 was once 144 MHz, and before that 1000 MHz, is irrelevant, but it indicates that nations are protective of the RR 2735 provision.
- There is another proposal... and it is usually expressed like this. Delete RR 2735, then each licensing administration is responsible for deciding its own requirements for the qualifications of its radio amateurs. This is generally known as "deregulation".
- The generally accepted result of this action is that the standards expected for radio amateurs engaged in world-wide communications will become seriously affected. Some administrations will continue with the existing RR 2735, some will not. ...Standards will fall and the result could be congestion by technical-elite operators incapable of self-controlling their occupancy to achieve the best communicating results.
- At WARC-79, the United States suggested that RR 2735 be changed "to permit administrations to develop their own licensing requirements." The United States proposal would reduce the requirement to the status of a recommendation only and this would give a similar result to the deletion of the whole regulation. The American Radio Relay League had surveyed its

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membership and had received an overwhelming response requesting "no change." However, on the conference floor, in the committee considering the matter, things turned out otherwise - to the embarrassment of the delegates from the United States. The delegation was saddled with making and supporting an unpopular proposal, irrespective of the personal judgement and opinions of its members. It did its best, and lost.

Among the lessons to be learned are: Considering that the United States was unsuccessful in this move, what support will be needed to effect a change in future?, and: Next time, listen to the people representing the Service concerned, they know the international climate.

## ORACLE, International organization for Morse change

We air mailed a copy of the IARU CW Committee report down to ORACLE, the New Zealand-based Organization Requesting Alternatives by Code-Less Examinations, Inc. and asked for their opinion of the IARU Report. A few days later, ORACLE's Dave Walker, ZL2BHE sent us back a response. ORACLE opposes retention of the Morse requirement. Instead their group supports a code-less option when qualifying for any amateur radio operator license.

ORACLE said the Morse regulation was originally conceived for a communications environment which existed nearly 70 years ago. "Whereas Morse may have been essential as the means of intercommunication in 1927, it is clear that this is no longer the case, either above or below 30 MHz."

**IARU:** "The Morse code, with its use of the Q-code and unique abbreviations - understood by operators in every country, irrespective of spoken languages used there - provides an effective substitute for such a common language...."

## ORACLE on code as an international language:

"We wish to point out obvious differences between: a code, and a language. Morse code basically provides a method for transmission and reception of letters, numbers and punctuation.

The Q code is a limited set of standardized three letter abbreviations. Little useful communication can take place by use of codes and abbreviations alone. A language is needed to achieve effective communication, with use of words and their meanings, as well as drawing on a moderate sized vocabulary.

If there was an emergency, and using an amateur HF band was the appropriate media, then calling by telephony, with English language, would likely yield the most favorable result.

Amateur radio international contests are a useful

indicator of modes and languages being tested for effectiveness in congested and interference limited conditions. Inspection of the various contest results and DX honor rolls invariably show higher scores and more names in the telephony lists compared to the telegraphy lists. Nearly all of these telephony or telegraphy honor listings are for contacts using English language.

## ORACLE on codeless HF:

The administration of Japan issues 10-watt power limit licenses for amateur operation on frequencies below 30 MHz with no Morse code proficiency required. Japan also has the highest number of amateurs of any country. This is evidence that amateur radio can function with a great many 'code-less' qualified amateurs on the HF bands. Self-regulation appears to be working satisfactorily.

## ORACLE on Morse testing alternatives:

Regarding alternative tests or examinations to introduce once RR 2735 is changed, examples we suggest as being suitable additions include keyboard skills and digital radio techniques. Keyboard skills are appropriate for the growing field of data communications and using computers in amateur radio. On-air time could be economized by applying keyboard skills.

Digital radio techniques can be applied to experimentation with high speed data, digital speech and digital signal processing as a countermeasure to interference. Such new subjects would reflect modern techniques in amateur radio and are also relevant to obtaining improved utilization of amateur spectrum.

## ORACLE on the IARU'S "Hidden Agenda":

The statement that radio amateurs are expected to be able to conduct rudimentary HF communication among themselves, without regard to language barriers or to limitations of their equipment is a fabrication. There are no known events in history where this has been discussed or documented. More likely this position was contrived in 1994 in an attempt to support a pre-selected "no change" position.

## ORACLE on facilitating amateur communications:

Like most hobbies, specific activity is interest driven. Amateur radio operators will continue to choose the appropriate mode of transmission or reception, so long as they are within the conditions of their license. Amateur operators may engage in any or all of self-training, intercommunication or technical experimentation, as each chooses. No regulatory prescription is needed to specify a particular way that amateur stations should be able to intercommunicate, on any band. Self-regulation along with personal preference are quite sufficient to facilitate intercommunication.

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## ARRL COMMENTS ON VANITY CALL SIGN COST

On February 13th, the American Radio Relay League submitted comments on the FCC's proposal to revise its Schedule of Regulatory Fees. These charges seek to recover the costs from the benefactors of FCC regulatory services. These services include radio wave enforcement, policy and rulemaking, user information and international activities.

The amount to be recovered for fiscal year 1995 is \$116,400,000 - nearly double the amount recovered in FY 1994. Fiscal year 1995 began last October 1st.

As a result many fees were increased and regulatory fees were extended to licensees of several services not now included in the schedule. The FCC also proposed changes in the Schedule to reflect changes in the Commission's new organizational structure.

Strangely, the FCC wants to delete all commercial radio operator regulatory fees since it abolished the Private Radio Bureau. The FY-1994 Private Radio Bureau Fee Filing Guide shows that \$35 should be collected on all new Marine Radio Operator Permits, GMDSS Radio Operator/Maintainer Licenses and First, Second or Third Class Radiotelegraph Operator certificates. (An additional \$45 application fee is required on all renewals.)

The proposed FY-1995 Schedule of Regulatory Fees shows no regulatory fees for Commercial Radio Operator licenses at all! We called the FCC's Managing Director's Office, but they were unable to give us a reason why the fees were to be discontinued. (We were also told that refunds may have to be made to all licensees who paid the \$35 regulatory fee after October 1, 1994.)

Marine (ship/coast station), Aviation (aircraft/ground), General Mobile Radio Service (GMRS) and Amateur Vanity Call Signs are planned to be reduced from a \$7 to a \$3 annual fee - payable in advance for the term of the license.

The new ham call sign fee was based on an estimated \$60,000 cost to process 2,000 ham call signs. This means that the previous \$70 charge for a ten year ham "call sign of choice" is proposed to be reduced to \$30.00.

The ARRL said they had "...no objection to the amount of this [reduced] proposed fee." They added, however, "It is not apparent that the estimated number of participants is accurate..." The League believes "...that the number of participants in FY 1995, the first year of the program, could be considerably higher." That, of course, would increase the FCC's processing costs.

"The League believes that the Vanity Call Sign program is a distinct benefit to the Amateur Service and should be cost-neutral to the Commission in its

administration, as Congress intended..." The ARRL suggested the FCC review the cost of this program before they reduced the cost from \$70 to \$30.

The League also restated its belief that Vanity Call Signs should carry a one-time application fee rather than an annualized regulatory fee. The ARRL is already on record with Congress as wanting a one-time \$150.00 fee for a special user-selected Amateur station call sign - rather than \$70 (or \$30) every ten years.

User fees will not be going up in fiscal year 1996 even though President Clinton has asked Congress to increase the FCC's budget by 20%. This includes a one-time charge of \$25 million to cover the cost of moving the agency to new quarters just outside of downtown Washington, DC. The FCC would get \$223.6 million in 1996 - up from FY 1995's \$185.3 million. The number of FCC employees (now 2,271) would remain the same. An additional \$5 million is to be appropriated to update computer equipment.

President Clinton changed his mind on charging AM/FM/TV broadcasters roughly \$5 billion "rent" over 5 years for use of the radio spectrum. Instead, the plan now is to raise \$4.8 billion by expanding the FCC's authority to auction federal government spectrum "...not previously available to the public.". The FCC supposedly is to be given authority to grant "new flexible licenses" where the purchaser could use the spectrum for any desired purpose.

## NASA SETS MARCH 2 FOR LAUNCH OF STS-67

The launch of STS-67, the second Space Shuttle mission of 1995 is set for Thursday, March 2nd at 1:37 a.m. EST (6:37 UTC). The primary payload is an astronomy experiment. The 16 day mission is the longest ever flown by a Shuttle. Landing at Kennedy Space Center is planned for March 17 at 3:09 p.m. EST.

STS-67 will also be a Shuttle Amateur Radio Experiment (SAREX) flight. On board will be six licensed ham radio operators. The STS-67 mission will be commanded by Stephen S. Oswald, KB5YSR; William G. Gregory, KC5MGA will serve as pilot. The three STS-67 mission specialists aboard Endeavour will include John M. Grunsfeld, Wendy B. Lawrence, KC5KII and Tammy E. Jernigan, KC5MGF. Rounding out the STS-67 crew will be two payload specialists - Samuel T. Durrance, N3TQA and Ronald Parise, WA4SIR. All are No-Code Technicians - except for Ron Parise who holds a General Class ticket.

Each operator will use their own call sign on FM voice -- downlinked on 145.55 MHz. All operations are in split mode. Uplinks will be 144.91, 144.93, 144.95, 144.97 and 144.99. The packet radio callsign will be W5RRR-1: Downlink 145.55 MHz, Uplink 144.49 MHz.

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The Goddard Amateur Radio Club, WA3NAN, Greenbelt, MD, will carry SAREX Bulletins and Shuttle Retransmissions on 3860, 7185, 14,295, 21,395, 28,650 KHz and 147.45 MHz (FM). ARRL Amateur Radio Station, W1AW, Newington, CT will air SAREX Bulletins on 3990, 7290, 14,290, 18,160, 21,390, and 28,590 KHz and 147.555 MHz (FM).

Twenty-six school groups will participate in SAREX with pre-scheduled direct and telebridge contacts. These include twenty-three in the US, and one each in India, South Africa and Australia. Endeavour will discuss with students what it is like to live and work in space. They'll also make random contacts with the ham radio community and personal contacts with the astronaut's families.

Send reports and QSLs to ARRL EAD, STS-67 QSL, 225 Main Street, Newington, CT 06111, USA. Include the following information in your QSL or report: STS-67, date, time in UTC, frequency and mode (FM voice or packet). In addition, you must also include a SASE using a large, business-sized envelope if you wish to receive a card. The Edison Radio Amateurs Association in Detroit/Edison MI has generously volunteered to distribute the QSL cards for this mission.

## 1994 COMMERCIAL RADIO OPERATOR TESTING

The FCC has issued a report showing examination activity for the first full year of privatized commercial radio operator testing. More than 14,000 examinees were tested at 4,252 test sessions last year.

	1Qtr94	2Qtr94	3Qtr94	4Qtr94	1994
<b>Examinees by COLE Managers: (*)</b>					
Elkins	1,118	1,744	1,710	593	5,165
NRE (*)	568	1,236	6,11	1,298	3,713
ETAI, Inc	300	364	312	294	1,270
NARTE	265	263	255	239	1,022
ISCET	207	277	185	210	879
Drake	156	189	235	195	775
Sylvan	178	259	144	155	736
Sea School	131	92	181	197	601
NABER	44	33	31	20	128
Examinees	2,967	4,457	3,664	3,201	14,289
Sessions	874	1,218	1,075	1,085	4,252

\* = Commercial Operator License Examination Managers:

Elkins Institute Inc., National Radio Examiners (Div. W5YI Group, Inc.), Electronic Technicians Association International, Inc., National Association of Radio Telecommunications Engineers Inc., International Society of Certified Electronic Technicians, Drake Training and Technologies, Sylvan Learning Systems Inc.; Sea School, National Association of Business and Educational Radio, Inc.

The COLE Managers and the FCC is in the process of revising all of the commercial radio operator

question pools. The revisions will be effective July 1995. Once all of the pools have been brought up to date, then all pools will have major revisions completed on a three year cycle. Here is the schedule:

Licenses	Examinations	Revision Effective
GMDSS	All Elements:	July 1995
GROL/Radar	Elements 7 & 9	January 1998
Radiotelegraph	Elements 1, 3 & 8	January 1999
GMDSS	Elements 5 & 6	January 2000
GROL/Radar	Elements 7 & 9	January 2001
Radiotelegraph	Elements 1, 3 & 8	January 2002
Radiotelegraph	Elements 5 & 6	January 2003

## "A WORD TO THE WISE" DEPARTMENT!!!

If you have considered getting your **General Radio Telephone Operator license (GROL)** - NOW is the time to take the test! The GROL is, by far, the most popular commercial radio operator license. Although there are eight different commercial tickets, 75% of all examinations attempted are for the GROL.

This license is required to adjust, maintain or internally repair FCC-licensed transmitters in the maritime, aviation and the international fixed service -- and to operate higher power maritime/aviation HF transmitters. (For example, all airline personnel working on avionics MUST hold a GROL as a condition of employment.)

In addition, it is the most sought after commercial license for operating, repairing and maintaining AM/FM/TV broadcast stations. Most licensees of broadcast stations require their technicians and engineers to hold a General Radiotelephone Operator license.

Here is why you should take the test as soon as possible! Right now, three-fourths of the technical questions are taken (almost verbatim) from the Amateur Radio Advanced and Extra Class question pools. This will shortly change as the pools are revised to more closely reflect commercial radio activity. Call 1-800-669-9594 if you need a GROL question pool study manual (\$19.95 plus shipping) - complete with all of the word-for-word questions, multiple choices, answers and explanations. We will also tell you where to take the examination. National Radio Examiners (our commercial radio division) has nearly 300 test centers coast-to-coast.

- **Packet Message Forwarding System Reconsideration Denied by FCC.** San Diego amateur: Phil Karn, KA9Q asked that the FCC reconsider its decision that require the licensee of the first forwarding station to either authenticate the identity of the first forwarding station or to accept accountability for message content. Karn wanted the total responsibility for violative communications placed on the originating station ... or the rules to apply only to certain system architectures.

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## K1MAN & ALLEGED "INTENTIONAL INTERFERENCE"

In our Oct. 1, 1994, newsletter we mentioned that Glenn Baxter, K1MAN (Belgrade Lakes, Maine) intends to settle the issue of alleged intentional interference to his IARN network bulletin service in federal court. Baxter contends that a relatively new section of the Communications Act (Section 333) makes it a Federal crime - rather than a violation of FCC rules - to "...willfully or maliciously interfere with or cause interference to any radiocommunications of any station licensed or authorized by or under this Act..." Supposedly, Barry Goldwater, K7UGA had this new section added to the Communication Act before he retired.

Baxter then sent out letters to certain amateur radio operators notifying them that they were about to be charged with a felony under Section 333. He also began filing "Standard Felony Complaint Affidavits" with the U.S. Attorney's Office in Bangor, Maine.

But apparently the U.S. Attorney does not agree with Baxter's handling of the matter. On Jan. 5th, Assistant U.S. Attorney Gail Malone for the District of Maine sent a letter to Glenn Baxter advising him that: 1.) the U.S. Attorney's Office "...does not handle this type of matter, ...we have forwarded the complaints to the Federal Communications Commission, which governs amateur radio operators and their use of the air and radio frequencies." 2.) referring to the Baxter letters "...alerting them of supposed criminal charges instituted by this office, and advising them to seek legal counsel" the U.S. Attorney's Office said; 3.) "It is against the law to write and mail this type of threatening communications, especially when it has no basis in fact. If you continue sending this type of letter, you may be subject to federal criminal charges for misrepresentation and for using the mails to make threats." 4.) "You may also jeopardize your amateur radio license; the FCC can use evidence of this type of conduct to demonstrate that you no longer meet the character requirements for a license."

5.) Baxter was directed to "...NOT send any more Standard Felony Complaint Affidavits to our office. The interference you allege, even if intentional, is not a federal criminal offense over which our office has prosecutorial jurisdiction."

A copy of the letter from the Assistant U.S. Attorney was also sent to John Greenspan, a litigation attorney in the FCC's Office of General Counsel.

Baxter responded by telling the Assistant U.S. Attorney that he "would not comply" with the request not to send further Standard Felony Complaint Affidavits. He said it was his Constitutional right under the First Amendment. Baxter then attached two more Standard Felony Complaint Affidavits to his letter to the U.S. Attorney. On Jan. 23, 1995, the following letter was sent from the FCC's General Counsel Office:

Dear Mr. Baxter:

A matter was brought to my attention several days ago that I need to discuss with you. We have been informed by

certain amateur radio operators that you claim to have an exclusive right to use a certain frequency and that you are telling other amateur radio operators that if anyone uses it, I will revoke their license. Since the first person who complained to us would not have any reason to know my name, it appears that the allegation might be true. We are presently investigating.

I have suggested to the Field Operations Bureau and the Wireless Telecommunications Bureau that if you have, in fact, engaged in the alleged conduct, they should consider holding a hearing to determine your fitness to remain an FCC licensee. I am making no representations to you as to whether or not such a hearing would be held and what the result of it might be. However, if you are using my name or the name of any other FCC employees to threaten other amateur radio operators with sanctions, you should cease doing so immediately. You have been a licensee long enough to know the proper complaint procedures.

I have also received a copy of a letter that you sent to an Assistant United States Attorney in Maine. For your information I did not write the letter Ms. Malone sent to you, but I concur with it. Your reply suggests to me that you may very well lack the character qualifications to be an FCC licensee. You certainly lack the maturity but that is, unfortunately, not grounds for revocation. While we do encourage people to bring violations to our attention, there is a fine line between being a good citizen and making improper threats. At the very least, you appear to be close to that line.

If it is ultimately determined that you have made improper threats, that determination could result in a hearing to examine your fitness to remain an FCC licensee and/or criminal prosecution. I make no representations as to what the outcome of any proceeding might be since I am not the one who will make that decision. However, you should take Ms. Malone's letter and this letter very seriously.

Although you have not used lawyers in the past, I suggest that you consult with an attorney knowledgeable in FCC procedures about your alleged conduct. I also urge you to consult with an attorney concerning Ms. Malone's letter. To provide some incentive for you to do this, let me say that if you wish to communicate with me for any reason, it must be through an attorney. I will not accept any letters or telephone calls from you personally. Besides making for more orderly procedures here, using an attorney would clearly be in your best interests. I would also strongly suggest that you not send letters to anyone similar to the letter you sent to Ms. Malone. As I previously indicated to you, such letters suggest to anyone who reads them that you may indeed lack the qualifications to hold an FCC license. [signed] Sincerely, John P. Greenspan, Counsel cc: Gail Fisk Malone, Esq.

Glenn Baxter shot back the following comments:

"The attached letter to me from John P. Greenspan, General Counsel for the FCC, really speaks for itself. It is emotional, unprofessional, and absolutely preposterous.

Small wonder that House Speaker Newt Gingrich has plans to do away with this incompetent and corrupt agency which is standing in the way of progress and a total waste of taxpayer's money. See Feb. 1, 1995 W5YI Report, page 9 attached." [Editor's Note: That story was a reprint of a newspaper article that ran in the Jan. 13th Washington Times.]

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- On Feb. 22, the ARRL filed comments on the FCC's intention to implement a new EBS, Emergency Broadcast System. It will be renamed as the Emergency Alert System. (See Jan. 1 Report) The FCC also invited comments on the possible participation of other radio services in the new EAS.

The ARRL feels a "wide variety of mass media services" should be included as *Emergency Alert System* participants. The League said that amateur radio, through RACES (*Radio Amateur Civil Emergency Service*) and ARES (*Amateur Radio Emergency Service*) has been a mainstay in state and local area emergency communications and preparedness plans during the entire history of the Service.

"...the Amateur Service is one of several logical partners in providing emergency alerting information to the public, and in the integration of alerting procedures into civil defense and other emergency preparedness functions at the national, state and local level, all on a voluntary basis."

"It is heartening that the Commission has specifically cited the Amateur Service as a source of communications (and alerting) capabilities in modernized communications plans," ARRL said. The Amateur Service has never, however, been viewed as an 'auxiliary' entity in emergency communications operations, but is rather a principal provider of communications during disaster relief and other emergencies at the state, regional and local levels."

"...the participation of the Amateur Service, given the nature of the service, must be voluntary. Amateurs can be used as observers, portable and mobile communications providers on site, and are skilled in establishing command post and operations center facilities, and communications links... Amateurs also provide digital and voice message traffic handling capabilities, which are recognized by the public safety and disaster relief agencies routinely served by amateurs during emergencies."

"It is suggested that the EAS participants should also be participants in regular emergency planning, not just emergency communications planning, so that disaster response and preparedness includes all participants in a comprehensive, dynamic and ongoing planning process."

- AMSAT is overjoyed that amateurs will get to keep the 13-cm (2400 MHz) band. Companies and industry groups representing various non-amateur services had petitioned the FCC to reallocate these bands to commercial use, which would have left the amateur-satellite service with only 2400-2402 and 2417-2450 MHz. Because of interference from microwave ovens and other Industrial, Scientific and Medical (ISM) devices nominally operating on 2450 MHz, the 2417-2450 MHz segment is not very useful for satellite downlinks and other weak-signal applications in many parts of the U.S.

In several rounds of comments filed with NTIA and FCC, AMSAT-NA maintained that 2400-2402 MHz would not be sufficient to accommodate the future needs of the amateur-satellite service for downlink spectrum, and argued for at least a 10 MHz wide allocation (2400-2410 MHz) which could be "paired" with the existing uplink band at 1260-1270 MHz, and preferably the entire 2400-2417 MHz range.

The Commission's decision announced on February 7th essentially gives amateurs all that AMSAT asked for. It elevates the amateur service from secondary to primary at 2390-2400 and 2402-2417 MHz, and the amateur-satellite service from secondary to primary at 2402-2417 MHz. Combined with the previous decision by NTIA not to reallocate 2400-2402 and 2417-2450 MHz, this means that the international amateur-satellite service allocation of 2400-2450 MHz will remain intact in the USA.

However, amateurs are not completely out of the woods. The latest FCC decision did not address the ultimate fate of 2300-2310 MHz, which must be reallocated from government to private use in January 1996. If amateurs lose their current use of this band, that could create congestion in the lower end of our amateur-satellite service allocation. The matter will be addressed in another FCC proceeding later this year; AMSAT-NA will, of course, continue to participate. (Adapted from ANS, AMSAT News Service)

- "Sort of ham radio without a license" said one report, "since only one person can speak at a time!" An Israeli company has developed "Internet Phone" - a windows-based software

product that permits Internet users to have free long distance voice telephone calls to and from any place in the world! All it takes is a multimedia personal computer, a microphone lashed to a sound card, a 14.4K baud modem ...and an Internet account.

The program (available free over the Internet) allows two minutes of talk time. Users pay an additional \$49 to get the digital key that allows unlimited use. I-Phone should be at your neighborhood software store within 60 days! Ma Bell, MCI and Sprint (who provide many of the high-speed Internet network circuits) are said to be concerned!

Also coming is **Personal Internet Broadcasting**! Budding broadcasters will be able to establish their own digital radio station without a license!

- U.S. Sprint (the long-distance phone people) recently initiated a trademark infringement proceeding against PacComm, the Tampa, FL company that makes the **Sprint-2 Amateur Packet Radio System**. PacComm said they were careful to distinguish the name and appearance from that used by U.S. Sprint. While PacComm said it "was highly unlikely that customers would be confused by the use of the Sprint-2 name" they agreed to change the name to Spirit-2.

- Hamvention Awards Nominees Sought** - Once again, the Dayton Hamvention is looking for candidates for:

**Amateur of the Year**: That special person who has made a long term commitment to the advancement of amateur radio.

**Special Achievement Award**: Is for a notable contribution to the advancement of ham radio. This award is usually given to a respected amateur who has spearheaded a single significant project, and the;

**Technical Excellence Award**: Goes to someone who has made an significant technical break-through in the field of amateur radio.

**Nominations go to:**

Hamvention Awards Chairman  
Box 964, Dayton, OH 45401-0964

This year's Hamvention extends from April 28 to 30. This, by the way, is the last year that it will be held in April. It goes to Mid-May beginning in 1996.

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## FEDERAL JUDGE REJECTS CONSENT DECREE

- *Microsoft Agrees to Stop Anti-Competitive Practices Claimed Illegal by the Government.*
- *Federal Judge Refuses to Go Along With the Settlement.*

Those were the newspaper headlines everywhere on Valentines Day as District Judge Stanley Sporkin halted a settlement between the Justice Department and Microsoft, the nation's largest software company.

He said the settlement did not deal with many types of violations alleged by Microsoft competitors and that Microsoft "...has a monopolistic position in a field that is central to this country's well being..."

The Sporkin decision was reportedly based on a 49-page "White Paper" which described Microsoft's strategy to dominate the digital revolution. It was written by a Palo Alto law firm and financed by "undisclosed companies" ...presumed to be competitors.

Under the Consent Decree, Microsoft agreed to stop the operations that the government said was illegal. Consent decrees are court orders where a company denies wrongdoing, but agrees to stop specific activities.

But they are certainly doing a lot right! Microsoft has just been named as the top technology firm in *Fortune* magazine's 13th annual list of "America's Most Admired Companies." The March 6th issue rates it the nation's "Best Overall" high tech company in terms of quality of management, product, services, innovativeness, financial soundness and ability to attract and retain employee talent. It also rated Microsoft as a "buy" in its register of "Stocks for the Next Millennium."

It appears now that both the Justice Department and Microsoft will join forces to appeal the decision. Attorney General Janet Reno thinks the judge overstepped his authority. The general feeling is that the judge failed to consider the monumental risks that Microsoft has taken in the past ...and will take in the future.

There is no question that Microsoft dominates the personal computer operating system business. Eighty-five percent of the world's PC's are controlled by MS-DOS and Windows operating systems. Windows, introduced in 1983, didn't take off until 1990. And take off it did! Some 80 million copies have been sold!

Microsoft also wants to dominate such emerging technologies as interactive television, on-line computer services, multimedia and electronic banking. But it is no sure bet that Microsoft will successfully compete against such industry giants as AT&T, IBM and software newcomer, Oracle Corp. Microsoft indeed has many balls in the air at the same time. One could easily be dropped.

## Just what is Microsoft doing wrong?

...certainly nothing if you are a Microsoft stockholder! Outsiders, however, believe that Microsoft's dominance in operating systems give it an unfair advantage over competitors since it has burrowed a software tunnel to PC users who use their software products.

And just about everyone does, it seems! In effect, Microsoft "owns real estate" on most of America's PC's which adversaries say they acquired through distribution of their low price interfaces.

There is a very fine line between having a competitive edge and an unfair upper hand. Competitors are especially alarmed about Microsoft's ability to promote or bundle products in new versions of MS-DOS or Windows. Judge Sporkin wants Microsoft to "build a wall" between their operating systems and applications software.

Microsoft will name the next generation edition of the best-selling "Windows" graphical user interface (currently version 3.1) as "Windows-95." To rivals, this signaled Microsoft's intent to have an annual edition which could conceivably and transparently "carry" Microsoft's new marketing strategies to every computer in the land?

Windows-95 is running behind schedule and the latest word is that Windows-95 is due out within 6 months. Some 48,000 beta testers are working at a fever pitch on the final polish, "bug catching" and compatibility checks. Meanwhile, the world (including application software and equipment upgrade makers) wait for its release. (It might even have to be called Windows-96.) But when it comes, it will be a bombshell!

Windows-95 will have an imbedded on-line service (called *The Microsoft Network*) and FREE Internet access. Microsoft could quickly could take over the consumer online business if their installed base moves up to Windows 95. TCI, the nation's largest cable TV network recently paid \$125 million for 20% of the new service.

Will Microsoft move from the PC to the TV? It appears so. Microsoft broadened it reach into every home by recently entering into a memorandum of understanding with Sony to develop smart interactive set-top terminals. And Microsoft also has joint video ventures in place with other large companies.

Analysts believe that Windows-95 will sell more than 10 million copies. This has certainly got the attention of competing on-line market-leaders: Compu-Serve, Prodigy and America On-Line! No on-line service currently has more than 2 million subscribers. Independent Internet service providers also are furious. Will the corner provider go the way of the

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corner drug store?

Microsoft's also said it intends to spend \$1.5 billion to acquire Intuit, Inc., and it's "Quicken," the nation's best-selling personal-finance software package. Are they buying more real estate? More than 7 million satisfied people use this low-priced product. And Intuit has already developed direct electronic links with banks.

This could give Microsoft an advantage in the emerging electronic home banking business ...especially if they bundle it free with future Windows upgrades. Microsoft will supposedly make their profit by charging a transaction fee in much the same way a bank assesses service charges on a checking account.

Quicken now offers a bank credit card and Microsoft could even start their own on-line bank! Products purchased on-line could be debited from your account and show up on Quicken. Financial institutions are fuming at all of the implications! Not all are standing still.

VISA has now teamed with Microsoft and they are developing a secure credit card transaction standard which can be used on any online service. They plan to license the technology to any merchant or credit card issuer in exchange for a royalty every time a card was used to make an online purchase.

Microsoft believes personal and business finance handling will be the next "killer application." And they want to be a hi-tech utility company rather than a product packager.

More problems. A large buying group of more than a thousand independent computer dealers says The Microsoft Network could put them out of business. They are asking the Justice Department to take action to prevent the new on-line service from offering competing products directly to the public.

Hewlett-Packard, Dell Computer and Gateway 2000 (...as well as Lotus and Borland software) have already signed up to offer "online storefronts" on The Microsoft Network. The software will be downloaded electronically, bypassing the corner software supplier..

## A most sucessful company!

Advertising agency trade journal, *Advertising Age* named Microsoft's chairman-CEO Bill Gates as its 1994 *Marketer of the Year*. Gates, only 39 years old, is now the richest American - net worth: \$9 billion. A college dropout, he started Microsoft in 1975 as a teenager along with a friend, Paul Allen.

Actually Bill Gates got his start in computers by playing with a teletype terminal as an eighth grader at Seattle's Lakeside School. He and Allen were able to use the terminal to access a time-sharing computer. It

fascinated him.

Last year's Microsoft's sales were nearly \$5 billion - 25% of which showed up on the bottom line! (\$1.2 billion.) Gates pays himself what is considered to be a paltry salary for a multi-billionaire (less than half a million a year.)

The company's most recent "hit" is a relatively low-priced suite of products called *Microsoft Office* which combines all of the best selling business applications into one package ...sort of an office in a box. More real estate. Microsoft's operating systems had a 40% sales gain last year!

To give you an idea of their size, Microsoft receives 23,000 telephone support calls and 30,000 electronic messages EVERY DAY! They handle them all.

The activities of Microsoft impacts almost every American (and foreign) PC company and user. By the year 2000, Microsoft expects to double in sales ...and ultimately grow into a \$20 billion dollar company. That's if Gates and Company can shed themselves of the "M" (monopoly) WORD. The fact remains, however, that Microsoft got to be the powerhouse they are through hard work, foresight and risk.

## RADIO PIRATE BATTLES TO STAY ON THE AIR

There have been some interesting developments in the Dunifer case. We have previously reported on the broadcast escapades of Stephen Dunifer and his efforts to keep Radio Free Berkley on the air.

For those of you who are not familiar with the case, for the past couple of years, Dunifer has been running a low power broadcast station on 88.1 and 104.1 FM. He has no FCC broadcast license and says he can't afford the \$100,000 and higher cost of a regular station. His format is that of a left-leaning, free-wheeling political talk show. Dunifer maintains his material offers an important to mainstream broadcast.

Using a 10-foot stick-in-the-ground vertical antenna, Dunifer broadcasts every Sunday night to the local countryside from a hill overlooking the San Francisco Bay area. The range is only a few miles. Dunifer simply built the station himself using inexpensive off-the-shelf electronic components ...the kind you can buy at your neighborhood Radio Shack. His 5-watt station is powered by a car battery. But it works!

Dunifer contends that rules enacted by the Federal Communications Commission during the 1970's have made it too costly and difficult for community groups to access the public airwaves.

Not only does he broadcast from his own FM station, but he also conducts workshops around the country teaching others how to build their own equipment so they too may participate in what he calls the

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micro power broadcast movement. Dunifer even offers a broadcast radio transmitter kit for those less technically inclined. Micro power stations are increasingly popping up around the country.

The FCC is annoyed. What Dunifer calls his First Amendment right to free speech over a public forum, the FCC calls pirate radio. The Commission has very stringent station separation, frequency allocation and technical standards designed to keep the airwaves orderly and interference free. Unlicensed stations bypass that plan. There is just so much spectrum for the FCC to parcel out.

Dunifer contends only the elite get a license since only they can afford a legal station. He says he has the constitutional right to air his opinions ...and those of others whose views might not otherwise be heard. His position is that stations radiating less than 10-watts should be able to broadcast if they do not interfere with other stations. He says he interferes with no one.

The FCC responded on June 1, 1993 by slapping Dunifer with a \$20,000 fine. Saying the FCC has "...failed to keep pace with the rapid proliferation of technological change..." he went underground. Pirate radio has always been with us. The early radio pioneers were all pirates. It took the Radio Act of 1912 to bring order to the radio spectrum. But it did not stop the practice.

Last fall, the FCC requested an injunction against Stephen Dunifer based on broadcasts occurring between April 1993 and May 8, 1994. "The defendant's unauthorized radio broadcasts create chaos in the radio spectrum, interfere with properly licensed broadcasting stations, and potentially endanger public safety," they said. Furthermore, the FCC pointed out that Dunifer has never asked that the rules be changed to permit him to operate.

"Radio frequency regulation is essential if the benefits of the medium are to be enjoyed by all. Quite simply, the radio spectrum is not large enough to accommodate an unlimited number of users..."

The FCC conceded that unlicensed low power devices, such as wireless stage microphones, are authorized but the field strength cannot exceed 250 microvolts/meter at 3 meters. Dunifer, they said, has indeed interfered with other properly licensed FM stations and that the "technical unreliability of his equipment creates a possibility of harmful interference to adjacent stations, air navigation, military and public safety communications in other parts of the radio spectrum."

Dunifer's San Francisco attorney, Louis Hiken requested a hearing on the injunction. He questioned "If there were truly any immediate threat of injury or harm to anybody, why did they wait for over 18 months to bring this to the court's attention." He said the obvi-

ous answer was that there is no immediate harm posed by Radio Free Berkeley's broadcasts. "There are micro radio broadcasters all over the country challenging the FCC's authority to limit the issuance of radio licenses to only wealthy commercial broadcasters.

"An injunction at this point would only reinforce the arbitrary and discriminatory regulatory scheme enacted by the FCC. It would deny what little non-commercial democratic voice exists over the airwaves and it would protect no interests that require immediate protection.

"If there is irreparable harm to be found in this case, it is the on-going policy of the FCC to license only the rich, and a handful of education institutions, that creates such harm. Technology currently exists to allow thousands of Americans to have access to the airwaves in ways that could assure their democratic use and a meaningful voice in the democratic process. ...Allowing Steven Dunifer to continue broadcasting within a 5 - 30 watt limit on a frequency that is not being used by other licensed broadcasters poses a threat to no one.

"Micro radio provides a format by which ordinary people can communicate with one another over the airwaves without interfering with the rights of large-scale FCC licensed commercial stations or their listeners. ...the fundamental problem is that the FCC has not provided procedures by which micro radio broadcasters can become licensed or authorized. Instead, the FCC is applying severe administrative and criminal sanctions, intended for application to large-scale, commercial operators, to micro radio broadcasters with the goal of completely precluding all such broadcasts. ...It is important to note that the 100 watt limit is a regulatory creation of the FCC. Nothing in the Communications Act ...prohibits micro radio broadcasting..."

On Jan. 20, 1995, came the surprising ruling! U.S. District Judge Claudia Wilden agreed with Dunifer and his attorney and turned down the FCC request to pull the plug on Radio Free Berkeley broadcasting from the Berkeley hills on a homemade transmitter!

She ordered a stunned FCC to rewrite its policies to accommodate a new breed of tiny micro-power stations that are proliferating across the country. The judge also asked that the government examine the constitutionality of barring small stations.

The FCC told Judge Wilden that no one in the country has ever allowed a micro-power station to continue broadcasting while its case is being decided.

Dunifer's attorney said that the FCC should enact regulations similar to Canada's. The Canadian government allows micro-power transmissions but monitors them to make sure that they don't interfere with mainstream broadcasts.